

APPENDIX A

SURVEY INSTRUMENTS

POSTCARD SURVEY INSTRUMENT



Denver Water is participating in a comprehensive national study regarding the ways multi-family housing properties in the United States handle water billing.

Please help by answering the three questions on the attached postcard. When you are done please detach the postcard with the three questions and drop it in the mail. No postage is necessary.

All information is completely confidential and will only be examined in combination with thousands of other responses.

By returning the postcard you will be entered into a drawing sponsored by the survey research company to win \$100.

If you have questions about this survey, please call National Research Center, Inc. (the company administering this survey) at 1-877-467-2462x104.

You or your company may own or manage many residential properties. Please answer these questions for this property:

1. How are residents billed for water usage at this property?

- ☐ Resident water usage is included as part of their rent.
- ☐ Residents pay for water through their tenant/homeowner association dues.
- ☐ Each unit has its own individual water meter.
- ☐ The water bill for each unit is divided between residents based on the square footage, the number of rooms, or the number of occupants, etc. (RUBS).
- ☐ The water bill for each unit is based on the amount of hot water each unit uses.
- ☐ Other

2. Who bills the residents for water usage at this property?

- ☐ The property management company or landlord/owner
- ☐ The local utility
- ☐ A third party billing service Name of service: _____
- ☐ Other _____

3. How many units are in this property? _____ units

MANAGER SURVEY INSTRUMENT

National Multiple Family Housing Manager Survey



Southern Nevada Water Authority
Conservation Division, Mail Stop #110
1900 E. Flamingo Suite 295
Las Vegas, NV 89119

[mailing address will go here, to show through envelope window]

Dear [XXX],

Planning for a safe and secure water supply meeting the needs of both customers and the environment involves knowing how people use and pay for water as well as what might motivate them to conserve. With better information, utilities can make wiser water planning decisions and better stewards of the public's money and the public resources.

The Southern Nevada Water Authority is participating in an important national study of water use and water billing in multi-family housing properties across the United States. This study is sponsored by a consortium of water providers and by the National Apartment Association (NAA) and the National Multi-Housing Council (NMHC). The **property in the box below** was randomly selected to be part of a small group of customers asked to assist with this study.

You can play a vital role in helping shape a sensible water future by completing and returning the attached survey form. We need the property manager or someone in a similar position at the **property in the box below** to complete this questionnaire. It would be most helpful if you could take 10 or 15 minutes today to sit down and complete this form. If you are not in a position to complete this survey yourself, please take a moment to pass it along to someone who can. We have provided an addressed, postage-paid envelope for returning the survey when it is completed.

All information collected for this study will be kept strictly confidential and will only be examined in combination with thousands of other responses.

We sincerely appreciate the time and effort it takes to assist with this research effort. As a token of our thanks for completing and returning this survey, you will be entered into a drawing sponsored by National Research Center, Inc. (the company administering the survey). **The winner will receive a cash prize of \$500.**

If you have any questions about this survey, please call the National Research Center at this toll free number: 1-877-467-2462 x104.

On behalf of the Southern Nevada Water Authority and water providers across the country, thank you for responding to this request and helping us plan the most sensible water future that we can.

Sincerely,

Kent Sovocool
Senior Conservation Programs Analyst

Please have the "Property Manager" for the address below respond to this survey

[Property Name]
[Property Street Address]
[Property City, State, Zip]

All questions refer to the address above

National Multiple Family Housing Manager Survey

Please complete this survey for the property shown on the cover letter.

Property Characteristics

1. How is the property classified?

- ☐ Government subsidized (public) rental housing -----> ☐ Local
☐ Private rental ☐ State
☐ Condominium ☐ Federal
☐ Private resident owned-----> _____% owner-occupied
☐ Other _____

2. Which type(s) of building(s) is on this property? (Please check all that apply.)

- ☐ 1 to 2 stories
☐ 3 to 5 stories
☐ more than 5 stories

3. How many residential buildings are on this property?

_____ number of buildings

4. How many units are in this property?

_____ number of units

5. How many of each of the following types of units are on the property?

- Efficiency/Studio-----> _____ # of units
 1 Bedroom-----> _____ # of units
 2 Bedroom-----> _____ # of units
 3 Bedroom-----> _____ # of units
 4 or more Bedroom-----> _____ # of units

6. If property is a rental, what is the typical rent for the following types of units that are on the property?

- ☐ Not a rental
 Efficiency/Studio-----> \$ _____ per month
 1 Bedroom-----> \$ _____ per month
 2 Bedroom-----> \$ _____ per month
 3 Bedroom-----> \$ _____ per month
 4 or more Bedroom-----> \$ _____ per month

7. Approximately how many people live on the property in total?

_____ number of people

8. In what year was the construction of the property completed?

Year _____

9. About how many acres is the total property? (1 acre = 43,560 square feet)

_____ acres

10. About what percent of the total property is irrigated landscape?

_____ %

11. Is there a separate water meter for irrigation?

- ☐ Yes ☐ No ☐ Don't know

12. Do you have a separate source of water such as a well or ditch for irrigation?

- ☐ Yes ☐ No ☐ Don't know

13. What is the current vacancy rate?

_____ % vacant

14. Over the last two to three years, has the vacancy rate gone up, gone down, or stayed about the same?

- ☐ The vacancy rate has gone up
☐ The vacancy rate has gone down
☐ The vacancy rate has stayed about the same
☐ Don't know

15. Is the property considered a senior citizen/retirement community?

- ☐ Yes
☐ No
☐ Don't know

Property Amenities

16. Which features and amenities that are common or shared by residents can be found on the property? (Please check all that apply.)

- | | | |
|---|---|---|
| <input type="checkbox"/> Sauna/Steam room | <input type="checkbox"/> Hot tub | <input type="checkbox"/> Common bathrooms |
| <input type="checkbox"/> Water features/fountains | <input type="checkbox"/> Exercise room | <input type="checkbox"/> One common laundry room/facility |
| <input type="checkbox"/> Landscape ponds | <input type="checkbox"/> Common shower | <input type="checkbox"/> More than one common laundry room/facility |
| <input type="checkbox"/> Play area | <input type="checkbox"/> Common kitchen | <input type="checkbox"/> Food service facility/restaurant |
| <input type="checkbox"/> Tennis courts | <input type="checkbox"/> Club house | <input type="checkbox"/> Store or other commercial facility |
| <input type="checkbox"/> Basketball courts | <input type="checkbox"/> Cooling tower | <input type="checkbox"/> Other _____ |

17. Does the property have a pool?

- ☐ Yes -----> (Check all that apply) ☐ Indoor
☐ No ☐ Outdoor

18. Does the property have an outdoor sprinkler system?

- ☐ Yes -----> What are the typical months for irrigation? (Please check all that apply)
☐ No ☐ All year round ☐ March ☐ June ☐ September
☐ Don't know ☐ January ☐ April ☐ July ☐ October
☐ February ☐ May ☐ August ☐ November
☐ December

Water Fixtures

19. Do the units come with hook-ups for washing machines?

- ☐ Yes -----> What percent of the units have washing machines?
☐ No ☐ _____ %
☐ Don't know

20. Do all or some of the units come equipped with dishwashers?

- ☐ Yes
☐ No
☐ Don't know

21. Have any of the washing machines been replaced since 1995?

- ☐ Yes -----> What percent of the units have had their washing machines replaced since 1995?
☐ No ☐ Less than 25% ☐ 50% to 75% ☐ All
☐ Don't know ☐ 25% to 49% ☐ 76% to 99% ☐ Don't know

22. Have any of the toilets been replaced since 1995?

- ☐ Yes -----> What percent of the units have had their toilets replaced since 1995?
☐ No ☐ Less than 25% ☐ 50% to 75% ☐ All
☐ Don't know ☐ 25% to 49% ☐ 76% to 99% ☐ Don't know

23. Have any of the faucets been replaced since 1995?

- ☐ Yes -----> What percent of the units have had their faucets replaced since 1995?
☐ No ☐ Less than 25% ☐ 50% to 75% ☐ All
☐ Don't know ☐ 25% to 49% ☐ 76% to 99% ☐ Don't know

24. Have any of the showerheads been replaced since 1995?

- ☐ Yes -----> What percent of the units have had their showerheads replaced since 1995?
☐ No ☐ Less than 25% ☐ 50% to 75% ☐ All
☐ Don't know ☐ 25% to 49% ☐ 76% to 99% ☐ Don't know

Water Bill Payment

25. How are residents billed for water usage at this property? (Please check all that apply)

- ☐ It is included in the rent or in the resident/homeowner association dues
- ☐ The water bill for each unit is based on the amount of hot water each unit uses
- ☐ Each unit has its own individual water meter and individual units are charged for the water they use
- ☐ The water bill for each unit is calculated based on the square footage, the number of rooms, or the number of occupants----->
 - ☐ Square footage
 - ☐ Number of rooms
 - ☐ Number of occupants
 - ☐ Other
- ☐ Other _____
- ☐ Don't know

26. Why was this particular method of billing for water usage selected? (Please check all that apply)

- ☐ It conserves water usage by residents
- ☐ It is the easiest way to bill for water usage
- ☐ Increased profitability of property
- ☐ We must comply with local laws and regulations
- ☐ It is the least expensive way to bill for water
- ☐ Other _____
- ☐ Don't know

27. Who bills the residents for water usage at this property? (Please check only one)

- ☐ No one, it is included in the rent or resident/homeowner association dues
- ☐ A separate company billing service (not the property manager or billing service) -----> Name of service: _____
- ☐ The property management company, landlord/owner, or resident/homeowner association
- ☐ The local utility
- ☐ Other _____
- ☐ Don't know

28. Which of the following are residents billed individually for? (Please check all that apply)

- ☐ Natural Gas/ Heating Oil
- ☐ Garbage
- ☐ Electric
- ☐ None
- ☐ Other _____
- ☐ Don't know

If residents are billed for water in-rent or through resident/homeowner association dues, answer the following question, otherwise skip to the next section (starting with question #30)

29. Have you considered converting to individual water meters for each unit or billing for water using a calculation based on square footage, the number of rooms, or the number of occupants, etc. for each unit?

- ☐ No
- ☐ Yes----->What were the things you considered when thinking about converting?
 - ☐ It conserves water usage by residents
 - ☐ It is the easiest way to bill for water usage
 - ☐ We must comply with local laws and regulations
 - ☐ It is the least expensive way to bill for water
 - ☐ Increased profitability of property
 - ☐ Too expensive
 - ☐ Resident resistance
 - ☐ Prohibited by law
 - ☐ Other _____
 - ☐ Don't know

If residents are billed for water using individual water meters for each unit OR billed for water using a calculation, please answer the following questions. (Otherwise skip to the next section.)

30. Was the current billing system in place since the property was developed or put in place at a later time?

- ☐ Since the property developed (Skip to #32)
☐ At a later time-----> Year _____
☐ Don't know

31. Were there resident complaints when the new water billing system was put in place?

- ☐ Yes -----> What were some of the complaints?
☐ No (Check all that apply)
☐ Don't know ☐ Too expensive
☐ Unfair
☐ Too complicated
☐ Other _____

32. What is the typical rate of non-payment of the water bill?

_____ %
☐ Don't know

33. How frequently are residents billed for water?

- ☐ Monthly
☐ Bi-monthly
☐ Quarterly
☐ Annually
☐ Other _____
☐ Don't know

34. What are the water rates that residents are charged?

Choose one method:

\$ _____ per K gallons (1000 gallons)

\$ _____ per HCF (100's of cubic feet; 1 HCF=748 gallons)

☐ Don't know

35. Are sewer service charges included with the water bill?

- ☐ Yes -----> What are the charges? \$ _____
☐ No
☐ Don't know

36. Does the property owner/manager pay for sending water bills to residents?

- ☐ Yes -----> How much? \$ _____
☐ No
☐ Don't know

37. Is there a monthly service charge for the billing service added to residents' water bill?

- ☐ Yes -----> How much? \$ _____
☐ No
☐ Don't know

38. What are the administrative difficulties you encountered, or are encountering, when converting to individual billing for water? (Please check all that apply)

- ☐ None
☐ Didn't have to convert
☐ Difficulty obtaining permits
☐ Resistance from government or regulatory officials
☐ Resistance from local water utility
☐ Resistance from residents
☐ Don't know
☐ Other _____

39. If this property is a rental, does the lease include language about resident's paying for water?

- ☐ Property is not a rental
☐ Yes-----> Can a resident's security deposit be docked for failure to pay the water bill?
☐ No ☐ Yes
☐ Don't know ☐ No

40. If this property has individual water meters for each unit are there any provisions for testing the meters?

- ☐ Yes
☐ No --> skip to question #41
☐ Don't know --> skip to question #41

40a. How often are they tested?

40b. By whom are they tested?

41. If this property has individual water meters for each unit are you required to test your water periodically for water quality by any regulatory agency?

- ☐ Yes ☐ No ☐ Don't know

42. As a part of our study, we will be surveying residents of multi-family properties about their water use habits. If possible, could you provide us with the unit addressing for this property? This may be attached as a separate document, or you can list the addresses below. (You may also use a shorthand method, if that would be easier, for example:

42. As a part of our study, we will be surveying residents of multi-family properties about their water use habits. If possible, could you provide us with the unit addressing for this property? This may be attached as a separate document, or you can list the addresses below. (You may also use a shorthand method, if that would be easier, for example:

1101, 1103, 1105 Elm Street

Each building has units 101-115, 201-215

OR

15345 Hazel Circle

Buildings 1, 2, 3, 4

Each building has units A,B,C,D,E,F,G)

If the list is available electronically, you may e-mail it to us at Jason@n-r-c.com if you prefer.

[illegible]

43. Please write in your name, phone number, and email address in the space below so that we may contact you during business hours if we have additional questions.

Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail:

Thank you for participating in our study. Please return your completed survey in the enclosed postage-paid envelope to:

National Research Center, Inc.

3005 30th Street

Boulder, CO 80301

If you have any questions about this questionnaire, please call (toll-free) 1-877-467-2462 x104.

RESIDENT SURVEY INSTRUMENT

National Multiple Family Housing Resident Survey



The City of Austin Water Conservation Program
P.O. Box 1088
Austin, TX. 78701

[mailing address will go here, to show through envelope window]

October, 2003

Dear Resident,

Planning for a safe and secure water supply meeting the needs of both customers and the environment involves knowing how people use and pay for water as well as what might motivate them to conserve. With better information, utilities can make wiser water planning decisions and be better stewards of the public's money and the public resources.

The City of Austin Water Conservation Program is participating in an important national study of water use and water billing in multi-family housing properties across the United States. This study is sponsored by a consortium of water providers and by the National Apartment Association (NAA) and the National Multi-Housing Council (NMHC). This property was randomly selected to be part of a small group of customers asked to assist with this study.

You can play a vital role in helping shape a sensible water future by completing and returning the attached survey form. It will only take 5 minutes of your time. We have provided an addressed, postage-paid envelope for returning the survey when it is completed.

All information collected for this study will be kept strictly confidential and will only be examined in combination with hundreds of other responses.

We sincerely appreciate the time and effort it takes to assist with this research effort. As a token of our thanks for completing and returning this survey, you will be entered into a drawing sponsored by National Research Center, Inc. (the company administering the survey). **The winner will receive a cash prize of \$500.**

If you have any questions about this survey, please call National Research Center at this toll free number: 1-877-467-2462 x108.

On behalf of the City of Austin Water Conservation Program and water providers across the country, thank you for responding to this request and helping us plan the most sensible water future that we can.

Sincerely,

Tony Gregg
Manager, Water Conservation Program
City of Austin

1. Indicate how many of each of the following types of water-using appliances or fixtures you have. Circle the appropriate number.

	<u>none</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4 or more</u>
a. Toilets	0	1	2	3	4+
b. Bathtub with shower	0	1	2	3	4+
c. Bathtub only (no shower).....	0	1	2	3	4+
d. Shower only (no bathtub).....	0	1	2	3	4+
e. Whirlpool bathtub w/ jets.....	0	1	2	3	4+
f. Bathroom sink	0	1	2	3	4+
g. Kitchen faucet	0	1	2	3	4+
h. Indoor utility sink.....	0	1	2	3	4+
i. Outdoor faucet/hose	0	1	2	3	4+

2. Do you have any of the following types of water-using appliances or fixtures in or as part of your apartment/housing unit?

	<u>Yes</u>	<u>No</u>
a. Garbage disposal	<input type="checkbox"/>	<input type="checkbox"/>
b. Dishwashing machine	<input type="checkbox"/>	<input type="checkbox"/>
c. Evaporative/swamp cooler.....	<input type="checkbox"/>	<input type="checkbox"/>

3. Do you use water from your apartment for any of the following?

	<u>Yes</u>	<u>No</u>
a. Potted plants.....	<input type="checkbox"/>	<input type="checkbox"/>
b. Outdoor lawn/garden/flower bed that you maintain (not common or community landscaping)	<input type="checkbox"/>	<input type="checkbox"/>

4. Do you have a washing machine in your apartment/housing unit?

☐ No → Where do you most commonly do your wash?

- ☐ Common area laundry
☐ Off-site laundry
☐ Other _____

☐ Yes → Is it a... (please check one)

- ☐ Top-loading washing machine
☐ Front-loading washing machine

What is the brand, model, and year of the machine?

Brand _____ Model _____ Year _____

5. Please specify the year, brand name and gallons per flush of your toilet(s). The year of manufacture is typically stamped into the porcelain on the underside of the tank lid or inside on the wall of the tank. (Enter as much information below as you can.)

Toilet 1 Year _____ Brand _____ Gallons per Flush _____

Toilet 2 Year _____ Brand _____ Gallons per Flush _____

Toilet 3 Year _____ Brand _____ Gallons per Flush _____

6. Please rate each of the following on a scale from 1 to 5, where 1 is "not at all important" and 5 is "extremely important."

	not at all important	1	2	3	4	extremely important
a. How important is conserving water in your household?.....	1	2	3	4	5	
b. How important is it for households in your community to conserve water on a regular basis?.....	1	2	3	4	5	

7. In the last several years, has your household taken any action to conserve water?

☐ No

☐ Yes → If yes, what type of action have you taken to conserve water? (Please check all that apply.)

- | | |
|---|--|
| <input type="checkbox"/> Take shorter showers | <input type="checkbox"/> Use dishwasher less/use fuller loads |
| <input type="checkbox"/> Installed low-flow showerheads | <input type="checkbox"/> Use washing machine less/use fuller loads |
| <input type="checkbox"/> Installed water savers (inserts) in toilet | <input type="checkbox"/> Repaired leaks in faucet/toilet |
| <input type="checkbox"/> Installed ultra-low-flush toilets | <input type="checkbox"/> Re-use household water |
| <input type="checkbox"/> Installed low-flow faucet aerators | <input type="checkbox"/> Washing car less often |
| <input type="checkbox"/> Use garbage disposal less often | <input type="checkbox"/> Had a home water audit done |
| <input type="checkbox"/> Other _____ | |

8. In the last several years, has your landlord taken any action to conserve water?

☐ Not applicable (I am the owner)

☐ Don't know

☐ No

☐ Yes → If yes, what type of action has your landlord taken to conserve water? (Please check all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> Installed low-flow showerheads | <input type="checkbox"/> Installed low-flow faucet aerators |
| <input type="checkbox"/> Installed water savers (inserts) in toilet | <input type="checkbox"/> Repaired leaks in faucet/toilet |
| <input type="checkbox"/> Installed ultra-low-flush toilets | <input type="checkbox"/> Re-use household water for landscaping |
| <input type="checkbox"/> Other _____ | |

9. From what sources, if any, have you heard or read about water conservation? (Please check all that apply.)

- | | |
|---|--|
| <input type="checkbox"/> None | <input type="checkbox"/> Radio public service announcements |
| <input type="checkbox"/> Water bill inserts | <input type="checkbox"/> Television public service announcements |
| <input type="checkbox"/> Homeowner or apartment newsletters | <input type="checkbox"/> Radio news |
| <input type="checkbox"/> Newspapers | <input type="checkbox"/> Television news |
| <input type="checkbox"/> Other _____ | |

10. How are you billed for water usage at this property? (Please check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> It is included in the rent or in the resident/homeowner association dues → go to question #14 | |
| <input type="checkbox"/> The water bill is based on the amount of hot water used | |
| <input type="checkbox"/> My household has its own individual water meter | |
| <input type="checkbox"/> The water bill is calculated based on the square footage, the number of rooms, or the number of occupants → | <input type="checkbox"/> Square footage |
| <input type="checkbox"/> Don't know | <input type="checkbox"/> Number of rooms |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Number of bedrooms |
| | <input type="checkbox"/> Number of occupants |
| | <input type="checkbox"/> Fixture count |
| | <input type="checkbox"/> Other |

11. Utilities, landlords or billing companies often charge a service fee on their bills. Is a service charge added to your water bill in addition to the amount you owe for the water used?

- ☐ Yes → How much is the service charge per bill? _____
- ☐ No
- ☐ Don't know

12. What is your opinion about the way you are billed for water?

- ☐ I am satisfied with the way I am billed for water
☐ I have no opinion about the way I am billed for water
☐ I am dissatisfied with the way I am billed for water → **Why are you dissatisfied? (Please check all that apply.)**
- ☐ Rates
☐ Service charge
☐ Late fees
☐ Accuracy of reported water consumption
☐ Other _____

13. Have you ever tried to resolve a complaint about your water billing?

- ☐ Not applicable → *go to question #14*
☐ No → *go to question #14*
☐ Yes → **13a. Was there a method set up for you to resolve your complaint?**
- ☐ No
☐ Yes → Please describe _____

13b. Do you feel your complaint was handled fairly?

- ☐ No → Please explain _____
☐ Yes → Please explain _____

14. Do you think the way you are billed for water makes your household more likely to conserve water?

- ☐ Yes
☐ No
☐ Don't know

15. How many people, including yourself, reside full-time at this address?

_____ Adults, including yourself (age 18+)
_____ Teenagers (age 13-17)
_____ Older Children (age 6-12)
_____ Younger Children (age 3-5)
_____ Infants or Toddlers (under age 3)

16. Do you rent or own your residence?

- ☐ Own
☐ Rent → **How much is your monthly rent?**
- ☐ Less than \$300
☐ \$300-\$499
☐ \$500-\$799
☐ \$800-\$1299
☐ \$1300-\$1699
☐ \$1700-\$1999
☐ \$2000-\$2499
☐ \$2500 or more

17. About how much do you estimate your household's total income before taxes was in 2002? Please check the appropriate box below.

- ☐ Less than \$15,000
☐ \$15,000 to \$24,999
☐ \$25,000 to \$34,999
☐ \$35,000 to \$49,999
☐ \$50,000 to \$74,999
☐ \$75,000 to \$99,999
☐ \$100,000 or more

18. Please attach a copy of your water bill. For privacy reasons, you may cross out your name and account number.

If you are unwilling or unable to attach your water bill, please return your completed survey. Not enclosing a copy of your water bill will not affect your chances of winning the \$500 cash prize for returning a completed survey.

Thank you very much for participating in this survey. Please send this questionnaire in the enclosed postage-paid envelope to:
National Research Center, Inc.
3005 30th Street
Boulder, CO 80301

BILLING COMPANY SURVEY INSTRUMENT

Sample Cover Letter

January 28, 2004

«MM» «FIRST» «LAST»

«TITLE»

«COMPANY»

«ADDRESS»

«CITY», «STATE» «ZIP»

Re: National Submetering and Allocation Billing Program Study

Dear «MM» «LAST»:

For the past two years Aquacraft, Inc. and the National Research Center, Inc. have been conducting an in-depth study of third party billing for water in the United States. This study is funded by the US EPA, the National Apartment Association (NAA), the National Multi-Housing Council (NMHC), and a consortium of 10 water providers across the US. We anticipate completing this study and making results available to the public in the first quarter of 2004 and results will be available at the February NSUAA workshop in Orlando.

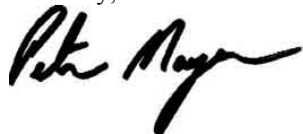
An important component of this study includes a survey of companies directly involved in submetering and allocation billing for water in order to better understand the industry business practices and policies.

Please take a few moments to complete and return the attached questionnaire. If you are not in a position to complete this survey yourself, please pass it along to someone who can. We have provided an addressed, postage-paid envelope for returning the survey when it is completed.

All survey information will be kept strictly confidential and will only be reported in summary form. If you have any questions about this survey, please call Aquacraft, Inc. at 303-786-9691.

On behalf of the project sponsors as well as water providers and other interested parties across the country, thank you in advance for your assistance and timely response.

Sincerely,



Peter W. Mayer
Vice President

National Multi-Family Water Billing Company Survey

Please answer the questions in this survey and return the survey in the stamped and addressed envelope provided. Also, please include a sample copy of your **water bill** format and any **administrative policy and customer service documents** you may have. Thank you.

GENERAL INFORMATION

1. Approximately how many water and/or wastewater bills does your company send per month? _____
2. In what year did your company start billing for water in multi-family housing?
Year _____
☐ We do not send bills for water and/or wastewater in multi-family housing (please return survey)
3. Is your company bonded?
☐ Yes ☐ No ☐ Don't know
4. Are you active in water billing across the country (where permitted) or only in specific regions?
☐ Across the country
☐ Specific regions → Please specify general regions (i.e. Pacific NW, mid-west, etc.)

5. Which billing method(s) does your company use?
☐ Submetering only
☐ Allocation (RUBS) only
☐ Hot water submetering only
☐ Other methodology only
☐ Combo of submetering and RUBS → please specify relative percentage:

% Submeter	_____	%	
% RUBS	_____	%	
% Hot water meter	_____	%	
% Other	_____	%	
TOTAL	_____ 100	%	

BILLS, FEES, AND CUSTOMER SERVICE

6. Do you have written customer service standards?
☐ Yes ☐ No ☐ Don't know
7. Do you have a standard bill format or does it vary from property to property? (If possible, please attach a sample water bill with this survey.)
☐ Standard Format
☐ Variable Format
☐ Other (please explain) _____

8. Do you put a customer contact phone number on each bill?
☐ Yes ☐ No ☐ Don't know
9. Do you include any informative historic consumption information on the water bill?
☐ Yes ☐ No ☐ Don't know
10. As a company policy do you typically include charges for common area usage?
☐ Yes → If yes how is it determined? _____

☐ No
☐ Don't know
11. How is your service charge determined? (Check all that apply.)
☐ Flat fee per bill
☐ Based on the utility service charge
☐ Based upon a percent of the bill
☐ Other (please explain) _____

12. What are your typical per bill service charges?
(please total all non-commodity related charges)

- ☐ \$1
☐ \$2
☐ \$3
☐ \$4
☐ \$5
☐ Other _____

13. What is the typical rate of non-payment of water bills?

- _____ %
☐ Don't know

14. Do your resell water at a profit at any of your properties?

- ☐ Yes → If yes by what %? _____
☐ No
☐ Don't know

15. What is the time frame for late payment? (Check all that apply.)

- ☐ Same as local utility
☐ Until next bill
☐ Until third bill
☐ _____ days
☐ Other _____
☐ Not applicable/we do not charge late fees
☐ Don't know

16. If you charge late fees, how are your late fees structured? (Check all that apply.)

- ☐ Not applicable/we do not charge late fees
☐ Same as local utility late fee structure
☐ Fixed dollar amount \$ _____
☐ A percent of the amount billed _____ %
☐ Other _____
☐ Don't know

17. At the start of service are customers given information on your late fee payment structure and payment time frame?

- ☐ Yes
☐ No
☐ Don't know
☐ Not applicable

17. How is the final bill to a customer determined (prior to move out)?

Explain _____

18. Do you have an administrative process to handle customer complaints?

- ☐ Yes
☐ No
☐ Complaints are handled by on-site manager
☐ Don't know
☐ Not applicable

19. What are common customer complaints? (Check all that apply.)

- ☐ Bill itself
☐ Amount of bill (consumption charge)
☐ Service charge
☐ Bill format
☐ Customer service information
☐ Other _____
☐ Don't know
☐ Not applicable

20. Have you ever gone through a bill complaint/dispute process with a customer?

- ☐ Yes
☐ No
☐ Don't know
☐ Not applicable

21. Would you support a set of national administrative guidelines for your industry?

- ☐ Yes
☐ No
☐ Maybe, if our industry had input
☐ Don't know

SUBMETERING

The next few questions apply only to companies that are involved in submetering (or hot water submetering) for at least part of their business. If your company does not submeter, please skip ahead to question #26.

22. How do you read the water meters at your submetered properties? (Please check all that apply.)

- ☐ Manual read of water meter by a person
☐ Automatic meter reading technology → Please specify system used: _____

☐ Other → Please explain _____

☐ Don't know

☐ Not applicable

23. Do you have a meter maintenance standard?

☐ Yes→If yes please describe maintenance program _____

☐ No

☐ Don't know

☐ Not applicable

24. Do you have a meter testing standard for accuracy?

☐ Yes

☐ No

☐ Don't know

☐ Not applicable

25. Are residents allowed to request meter testing for accuracy?

☐ Yes→ If yes, is there a charge? ☐ Yes ☐ No

☐ No

☐ Don't know

☐ Not applicable

RATIO UTILITY BILLING SERVICE (RUBS)

The next few questions apply only to companies that are involved in Ratio Utility Billing Service (RUBS) for at least part of their business. If your company does not bill using RUBS, please skip these questions and proceed to the end of the survey.

26. What method(s) do you use to determine commodity charges for RUBS customers? (Check all that apply.)

☐ Flat fee

☐ Based on area (square footage) of apartment

☐ Based on number of bedrooms

☐ Based on number of residents

☐ Based on number of bathrooms

☐ Based on number of fixtures

☐ Other _____

☐ Not applicable

27. Do you subtract common area water use and/or irrigation from RUBS customers' bills?

☐ Yes, for all RUBS properties

☐ Only for some RUBS properties

☐ No

☐ Don't Know

☐ Not Applicable

28. What method(s) do you use to determine the amount to subtract for common area and/or irrigation usage? (Check all that apply.)

☐ Never subtract for common area usage

☐ Fixed dollar amount subtracted

☐ Fixed volume of water subtracted

☐ Based on a percentage of total water use→ please specify percent _____

☐ Amount based the specific common area amenities present at each property (i.e. swimming pool, hot tub, kitchen, cafeteria, landscaping, water feature, etc.)

☐ Based on property owner's specifications

☐ Other _____

☐ Not applicable

☐ Don't Know

29. Do you track or have you ever tracked water consumption at a property before and after implementation of RUBS?

☐ Yes→If yes, please summarize findings _____

☐ No

☐ Don't Know

☐ Not Applicable

Thank you for taking the time to complete this important survey. Please return the survey in the stamped and addressed envelope provided. Also, please include a sample copy of your water bill format and any administrative policy and customer service documents you may have. Thank you.

Results from this study will be available in mid-2004. Results will be posted on our web site – www.aquacraft.com as well as on the web sites of some participating water utilities.

SITE VISIT PROTOCOL

Matched Pairs Site Visit Protocol		Page 1																										
General Information																												
Utility	<input type="text"/>	DateOfVisit <input type="text"/>																										
PropID	<input type="text" value="9999"/>	Arrive <input type="text"/>																										
Billing Method	<input type="text"/>	Depart <input type="text"/>																										
Property Name	<input type="text"/>	Auditor Name(s) <input type="text"/>																										
Service Address	<input type="text"/>	Organization <input type="text"/>																										
Svc City, St	<input type="text"/> Svc Zip <input type="text"/>	MatchPairID: <input type="text"/>																										
Contact Name(s)	<input type="text"/>	SitePlan Available (y/n) <input type="text"/>																										
Contact Phone	<input type="text"/>	Aerial Photo Available (y/n) <input type="text"/>																										
Contact Phone 2	<input type="text"/>	Scaled Map Available (y/n) <input type="text"/>																										
Final comments		<input type="text"/>																										
Water Account Information																												
# Water Accounts	<input type="text"/>	Acct # <input type="text"/>																										
Monthly Water Use (kgal) <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>January</th> <th>February</th> <th>March</th> <th>April</th> <th>May</th> <th>June</th> <th>July</th> <th>August</th> <th>September</th> <th>October</th> <th>November</th> <th>December</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>			January	February	March	April	May	June	July	August	September	October	November	December	Total	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
January	February	March	April	May	June	July	August	September	October	November	December	Total																
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>																

Matched Pairs Site Visit Protocol		Page 2									
Property Characteristics											
# Residential Buildings on site	<input type="text"/>										
# Non- Residential Buildings on site	<input type="text"/>										
# Apartment Units	<input type="text"/>										
Type of property	<input type="text"/>										
Year building was completed	<input type="text"/>										
Current Vacancy Rate	<input type="text"/> %										
Number of each type of apartment	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Efficiency/studio</th> <th>1 bedroom</th> <th>2 bedroom</th> <th>3 bedroom</th> <th>4+ bedroom</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>	Efficiency/studio	1 bedroom	2 bedroom	3 bedroom	4+ bedroom	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Efficiency/studio	1 bedroom	2 bedroom	3 bedroom	4+ bedroom							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>							
Monthly Rent for each type of apartment	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Efficiency/studio</th> <th>1 bedroom</th> <th>2 bedroom</th> <th>3 bedroom</th> <th>4+ bedroom</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>	Efficiency/studio	1 bedroom	2 bedroom	3 bedroom	4+ bedroom	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Efficiency/studio	1 bedroom	2 bedroom	3 bedroom	4+ bedroom							
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>							
Number of Residents (Estimate)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th># Adults</th> <th># Children</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>	# Adults	# Children	Total	<input type="text"/>	<input type="text"/>	<input type="text"/>				
# Adults	# Children	Total									
<input type="text"/>	<input type="text"/>	<input type="text"/>									
How are Residents Charged for Water?	<input type="text"/>										
Explanation of water billing method (if necessary) <input type="text"/>											
Was the current billing system in place since the property developed? (y/n)	<input type="text"/>										
If it was put into place at a later time, what year did conversion take place?	<input type="text"/>										
Who bills for water usage at the property	<input type="text"/>										
If billed by a third party, what is the service company's name?	<input type="text"/>										
Unit Plumbing Fixtures											
Does the apartment have clothes washer hook-ups? (y/n)	<input type="text"/>										
If so, what % of apartments have clothes washers installed	<input type="text"/> %										
Do some or all of the units come equipped with dishwashers?	<input type="text"/>										
If so, what % of apartments have dishwashers installed?	<input type="text"/> %										
What % of the following fixtures and appliances have been replaced since 1995? (Which are water saving/low flow?)											
Toilets (1.6 gpf)	<input type="text"/>										
Showerheads	<input type="text"/>										
Clothes washers (front loaders)	<input type="text"/>										
Faucets	<input type="text"/>										

Site Facilities**Laundry**Is there one common laundry room/facility? Is there more than one common laundry room/facility? Is there a separate water meter for the laundry? (y/n) Number of central laundry facilities Total # clothes washers (all central laundry facilities) Central Laundry CW Brand Central Laundry CW Model Utility

PropID 9999

Prop
Name **Recreation**Does the property have a pool? (y/n) Type of pool (indoor/outdoor) Number of indoor pools Indoor pool sq ft or indoor pool gallons Number of outdoor pools Outdoor pool sq ft or outdoor pool gallons Hot Tub/Jacuzzi (y/n) Hot Tub Gallons Sauna/steam room? (y/n) # steam rooms # saunas Outdoor tennis courts? (y/n) Outdoor basketball courts? Do you hose courts down How often? **Water Features**Landscape ponds? (y/n) Pond sq ft Is the pond filled? (y/n) How often Fountains? (y/n) Is the fountain recirculating? (y/n) **Landscape and Irrigation**Is there a separate irrigation meter? (y/n) What is the total irrigated area? (sq ft)

How was the area obtained?

☐ Arial ☐ Measuring Wheel ☐ SiteMap ☐ Other

How is the property irrigated?

☐ Don't Irrigate ☐ Automatic ☐ Manual ☐ Other

Estimate the percentage of each type of vegetation:

Turf Shrub/Tree Flowers Other **Utilities: Cooling and Heating**Cooling towers (y/n) How many? Is there a constant blowdown/bleed? (y/n) Swamp coolers (y/n) How many? Boilers for space
heating? (y/n) How many? Is there a constant blowdown/bleed? (y/n) **Random Unit Visits***To be completed after the site visit by the auditor*How many units were visited?

Using information from the manager survey, property owner interview, and random unit visits, what is your best educated guess on the percent of low flow/water saving fixtures listed below?

Toilets (1.6 gpf) SH (<2.5 gpm) Faucet (<2.2 gpm) CW (front loader)

Random Unit Visits		Utility				
		Prop ID:				
Building		Unit No.				
How many bedrooms in the unit?						
How many bathrooms in the unit?						
Is there a clotheswasher hook-up? (y/n)						
Clothes washer installed?(y/n)						
Make		Model				
Is there a dishwasher? (y/n)						
Make		Model				
Room	Fixture Type	Brand	Model	Flow Rate /Vol	Leak?	
					y/n	Describe
Kitchen	Faucet					
Bath 1	Toilet					
Bath 1	Faucet					
Bath 1	Shower					
Bath 2	Toilet					
Bath 2	Faucet					
Bath 2	Shower					

REGULATORY SURVEYS

Sample Cover Letter

Potomac Resources, Inc.

1001 Connecticut Avenue, N.W. Suite 801

Washington, DC 20036

Edward R. Osann, President

telephone (202)429-8873

facsimile (202)429-2248

e-mail eosann@starpower.net

Energy and Natural Resources • Advocacy and Analysis

October 2002

Re: National Multiple Family Submetering and Allocation Program Study

Potomac Resources is one of a team of consultants carrying out the "National Multiple Family Submetering and Allocation Program Study." This study is being sponsored by nine major drinking water utilities* and two national apartment associations.** The study is being managed by the East Bay Municipal Utility District in Oakland, California.

The purpose of this study is to identify the effects of billing allocation systems for the assignment of the cost of water service, sewer service, and/or the energy cost of domestic hot water directly to the residents of multiple family apartment buildings. Submetering and other allocation practices may have important implications for water and energy consumption, water and wastewater infrastructure planning, and consumer protection. For additional information about the general aims and goals of this survey, see www.aquacraft.com.

A portion of this study is a survey of current public policies related to billing allocation. Because these practices may present issues that extend beyond the jurisdiction of any one agency, this survey is being distributed to three sets of state officials --

- state weights and measures officials;
- state public utility regulators; and
- state drinking water officials.

It would be deeply appreciated if you would take a few moments to answer this survey from the perspective of your own agency. Feel free to answer any questions for which you have current information.

We will be contacting you about this survey, and you may feel free to contact us at 202-429-8873 or by e-mail at submeteringsurvey@starpower.net. Completed surveys may be e-mailed back to this same address, or the completed survey may be returned by fax to Potomac Resources, Inc. at 202-429-2248 if you prefer.

Thank you for your participation in this important project. The results of the survey will be made publicly available in the final report of the National Multiple Family Submetering and Allocation Program Study.

Sincerely,



Edward R. Osann
President

* City of Austin TX, Denver Water CO, City of Phoenix AZ, San Antonio Water System TX, San Diego County Water Authority CA, City of Tucson AZ, Portland Water Bureau OR, East Bay Municipal Utility District CA, and the Southern Nevada Water Authority.

** The National Apartment Association and the National Multi-family Housing Council.

**Survey of State Drinking Water Officials
for the
National Multiple Family Submetering and Allocation Program Study**

Please fax the completed survey to Potomac Resources, Inc. at 202-429-2248.

Definitions

For purposes of this survey, billing allocation systems consist of –

Submetering and submetered systems refer to the installation of water measurement devices in each dwelling unit of a multiple family apartment building and the use of such devices for billing each occupied unit for water service, sewer service, and/or the energy cost of domestic hot water, based upon the unit's measured consumption; or

Ratio Utility Billing System, or RUBS, is the practice of allocating the total cost of water service, sewer service, and/or the energy cost of domestic hot water in a multiple family apartment building for payment by each occupied unit based upon a formula allocation of the building's primary utility bill. Such allocations may be based upon a unit's floor area, number of bedrooms, number of occupants, or measured hot water usage.

A. Billing Allocation Overview

1. Is the practice of submetering multiple family apartments allowed by your state or agency?
Yes ____ No ____ For purposes of this survey, if submetering is not explicitly prohibited, we assume it is allowed.
2. Is the use of a ratio billing system, or RUBS, in multiple family apartments allowed by your state or agency? Yes ____ No ____ For purposes of this survey, if RUBS is not explicitly prohibited, we assume it is allowed.
3. Does the state require submetering in some situations, such as new apartment construction?
Yes ____ No ____ If yes, please specify. _____
4. Does the state offer incentives for submetering, in either new apartment construction or installation in existing structures? Yes ____ No ____ If yes, please specify. _____
5. Are apartment owners or managers required to inform any public agencies when a submetering system or RUBS system is placed in service? Yes ____ No ____ If yes, must they inform —
 - a. the public water system providing service to the master meter? Yes ____ No ____
 - b. the wastewater service provider? Yes ____ No ____
 - c. any state agency? Yes ____ No ____ If yes, please specify. _____

B. Drinking Water Regulatory Issues

1. What is the status of submetered water systems in multiple family apartments under the state's Safe Drinking Water Program? (check one)
 - a. public water system ____

- b. sequential water system _____
 - c. not regulated at all under SDWA _____
 - d. other (please specify) _____
2. What is the status of RUBS systems under the state's Safe Drinking Water Program? (check one)
- a. public water system _____
 - b. sequential water system _____
 - c. not regulated at all under SDWA _____
 - d. other (please specify) _____
3. If some submetered systems or some RUBS systems *are* subject to SDWA regulation and others *are not*, what characteristic(s) of system operation trigger SDWA application to such systems in this state? _____
4. Does your agency have any other regulations or guidelines that pertain to submetering or RUBS? Yes _____ No _____ If yes, please specify. _____
5. Is your agency currently considering any *new* regulations or guidelines that pertain to submetering or RUBS? Yes _____ No _____ If yes, please specify. _____
6. Does the state building code and/or plumbing code require the issuance of a permit for the installation of submeters in existing multiple family apartment structures? Yes _____ No _____
7. Are you aware of any statutes, regulations, or guidelines of any other state agency or local jurisdiction in your state that pertain to submetering or RUBS? Yes _____ No _____ If yes, please specify. _____
- _____
- _____
- _____

Requests for clarification or further information at this agency may be directed to –

Name _____

Agency _____

Phone _____

e-mail _____

Thank you for your participation in this important project. The results of the survey will be made publicly available in the final report of the National Multiple Family Submetering and Allocation Program Study.

Please fax the completed survey to Potomac Resources, Inc. at 202-429-2248.

Survey of State Public Utility Regulatory Officials for the National Multiple Family Submetering and Allocation Program Study

Please fax the completed survey to Potomac Resources, Inc. at 202-429-2248.

Definitions

For purposes of this survey, billing allocation systems consist of –

Submetering and submetered systems refer to the installation of water measurement devices in each dwelling unit of a multiple family apartment building and the use of such devices for billing each occupied unit for water service, sewer service, and/or the energy cost of domestic hot water, based upon the unit's measured consumption; or

Ratio Utility Billing System, or RUBS, is the practice of allocating the total cost of water service, sewer service, and/or the energy cost of domestic hot water in a multiple family apartment building for payment by each occupied unit based upon a formula allocation of the building's primary utility bill. Such allocations may be based upon a unit's floor area, number of bedrooms, number of occupants, or measured hot water usage.

A. Billing Allocation Overview

1. Is the practice of submetering multiple family apartments allowed by your state or agency?
Yes ____ No ____ For purposes of this survey, if submetering is not explicitly prohibited, we assume it is allowed.
2. Is the use of a ratio billing system, or RUBS, in multiple family apartments allowed by your state or agency? Yes ____ No ____ For purposes of this survey, if RUBS is not explicitly prohibited, we assume it is allowed.
3. Does the state require submetering in some situations, such as new apartment construction?
Yes ____ No ____ If yes, please specify. _____
4. Does the state offer incentives for submetering, in either new apartment construction or installation in existing structures? Yes ____ No ____ If yes, please specify. _____
5. Are apartment owners or managers required to inform any public agencies when a submetering system or RUBS system is placed in service? Yes ____ No ____ If yes, must they inform —
 - a. the public water system providing service to the master meter? Yes ____ No ____
 - b. the wastewater service provider? Yes ____ No ____
 - c. any state agency? Yes ____ No ____ If yes, please specify. _____

B. Public Utility Regulatory Issues

1. Are the rates or other terms of service of submetered or RUBS systems in multiple family apartment buildings subject to regulation by the public service commission/public utility commission?
 - a. Submetered systems: Yes ____ No ____ If only under certain conditions, please describe. _____
 - b. RUBS systems: Yes ____ No ____ If only under certain conditions, please describe. _____

2. Does state law or regulation allow the operators of submetered or RUBS systems to collect from apartment residents —
 - a. variable (or “commodity”) charges at the primary utility’s retail rate? Yes ____ No ____
 - b. fixed (or “standby”) charges at the primary utility’s retail rate? Yes ____ No ____
 - c. service fees for the reading and billing of submetered accounts, in addition to the variable and fixed charges of the primary utility? Yes ____ No ____
If yes, is there a monetary cap on such service fees? _____
 - d. fees for meter installation, meter testing, or meter replacement? Yes ____ No ____
 - e. late fees, collection fees, or change of account (“move-in” or “move-out”) fees? Yes ____ No ____

For purposes of this survey, if collection of such charges or fees is not explicitly prohibited we assume they are allowed.

3. Does state law or regulation require any of the following in the operation of submetered or RUBS systems in multiple family apartment buildings —
 - a. local or toll-free point of contact for billing questions? Yes ____ No ____
 - b. testing of meter accuracy upon complaint, without charge? Yes ____ No ____
 - c. written dispute resolution process? Yes ____ No ____
 - d. prohibition of cut-off of water service for lack of payment of an apartment resident’s account? Yes ____ No ____

4. Does your agency have any other regulations or guidelines that pertain to submetering or RUBS? Yes ____ No ____ If yes, please specify. _____

5. Is your agency currently considering any *new* regulations or guidelines that pertain to submetering or RUBS? Yes ____ No ____ If yes, please specify. _____

6. Does the state building code and/or plumbing code require the issuance of a permit for the installation of submeters in existing multiple family apartment structures? Yes ____ No ____

7. Are you aware of any statutes, regulations, or guidelines of any other state agency or local jurisdiction in your state that pertain to submetering or RUBS? Yes ____ No ____ If yes, please specify. _____

Requests for clarification or further information at this agency may be directed to –

Name _____
Agency _____
Phone _____
e-mail _____

Thank you for your participation in this important project. The results of the survey will be made publicly available in the final report of the National Multiple Family Submetering and Allocation Program Study.

Please fax the completed survey to Potomac Resources, Inc. at 202-429-2248.

Survey of State Weights and Measures Officials for the National Multiple Family Submetering and Allocation Program Study

Please fax the completed survey to Potomac Resources, Inc. at 202-429-2248.

Definitions

For purposes of this survey, billing allocation systems consist of –

Submetering and submetered systems refer to the installation of water measurement devices in each dwelling unit of a multiple family apartment building and the use of such devices for billing each occupied unit for water service, sewer service, and/or the energy cost of domestic hot water, based upon the unit's measured consumption; or

Ratio Utility Billing System, or RUBS, is the practice of allocating the total cost of water service, sewer service, and/or the energy cost of domestic hot water in a multiple family apartment building for payment by each occupied unit based upon a formula allocation of the building's primary utility bill. Such allocations may be based upon a unit's floor area, number of bedrooms, number of occupants, or measured hot water usage.

A. Billing Allocation Overview

1. Is the practice of submetering multiple family apartments allowed by your state or agency?
Yes ____ No ____ For purposes of this survey, if submetering is not explicitly prohibited, we assume it is allowed.
2. Is the use of a ratio billing system, or RUBS, in multiple family apartments allowed by your state or agency? Yes ____ No ____ For purposes of this survey, if RUBS is not explicitly prohibited, we assume it is allowed.
3. Does the state require submetering in some situations, such as new apartment construction?
Yes ____ No ____ If yes, please specify. _____
4. Does the state offer incentives for submetering, in either new apartment construction or installation in existing structures? Yes ____ No ____ If yes, please specify. _____
5. Are apartment owners or managers required to inform any public agencies when a submetering system or RUBS system is placed in service? Yes ____ No ____ If yes, must they inform —
 - a. the public water system providing service to the master meter? Yes ____ No ____
 - b. the wastewater service provider? Yes ____ No ____
 - c. any state agency? Yes ____ No ____ If yes, please specify. _____

B. Weights and Measures Issues

1. Has the state adopted any standard for the accuracy of meters used in submetering multiple family apartments?

Yes ____ No ____ If yes, what is the standard? _____

If yes, is this standard mandatory for all submeters installed in this state? Yes ____ No ____

2. Does the state require testing for the accuracy of apartment submeters –
 - a. Prior to installation ____ OR upon field installation (i.e., in the “as installed” position) ____;
 - b. By a public official ____ OR by the manufacturer or installer ____;
 - c. By testing each individual meter ____ OR by testing a representative sample ____? If a sample, what size? _____
 - d. Periodically *after* installation? ____ If so –
 - i. How often? _____
 - ii. What percent tested each year? _____
3. Does the state require periodic replacement of installed submeters? Yes ____ No ____
If yes, how long may a submeter remain in operation before replacement is required? _____
4. Does your agency have any other regulations or guidelines that pertain to submetering or RUBS?
Yes ____ No ____ If yes, please specify. _____

5. Is your agency currently considering any *new* regulations or guidelines that pertain to submetering or RUBS? Yes ____ No ____ If yes, please specify. _____

6. Does the state building code and/or plumbing code require the issuance of a permit for the installation of submeters in existing multiple family apartment structures? Yes ____ No ____
7. Are you aware of any statutes, regulations, or guidelines of any other state agency or local jurisdiction in your state that pertain to submetering or RUBS? Yes ____ No ____ If yes, please specify. _____

Requests for clarification or further information at this agency may be directed to –

Name _____
Agency _____
Phone _____
e-mail _____

Thank you for your participation in this important project. The results of the survey will be made publicly available in the final report of the National Multiple Family Submetering and Allocation Program Study.

Please fax the completed survey to Potomac Resources, Inc. at 202-429-2248.

National Multiple Family Submetering and Allocation Billing Program Study Survey of Drinking Water Utility Managers

September 2003

Please **fax** this survey when complete to Potomac Resources, Inc. at 202-429-2248, or return
by
e-mail to <submeteringsurvey@starpower.net>.

Definitions

For purposes of this survey, billing allocation systems consist of –

Submetering and **submetered systems**, which refer to the installation of water measurement devices in each dwelling unit of a multiple family apartment building and the use of such devices for billing each occupied unit for water service, wastewater service, and/or the energy cost of domestic hot water, based upon the unit's measured consumption; or

Ratio Utility Billing System, or **RUBS**, which is the practice of allocating the total cost of water service, wastewater service, and/or the energy cost of domestic hot water in a multiple family apartment building for payment by each occupied unit based upon a formula allocation of the building's primary utility bill. Such allocations may be based upon a unit's floor area, number of bedrooms, number of occupants, or measured hot water usage.

Characteristics of this Utility

1. Utility name _____
2. Mailing Address _____
3. Is this utility a public agency or a private company or corporation? ☐ Public ☐ Private
4. Do you serve retail customers or wholesale customers? ☐ Retail ☐ Wholesale ☐ Both
5. What is the population served by this utility? _____
 - 5a. Approximately what percent of your customers are multi-family housing accounts? _____%

Billing Allocation Policies

6. Does this utility allow the resale of your water by third parties? ☐ Yes ☐ No
 - 6a. If yes, does this utility allow the resale of water at a profit by third parties? ☐ Yes ☐ No
7. Does this utility have regulations regarding multi-family sub-metering programs? ☐ Yes ☐ No
 - 7a. If yes, is sub-metering allowed? ☐ Yes ☐ No
 - 7b. If no, what is the primary reason for prohibiting it? _____
8. Does this utility have regulations regarding multi-family billing allocation (RUBS) programs? ☐ Yes ☐ No
 - 8a. If yes, are billing allocation programs allowed? ☐ Yes ☐ No
 - 8b. If no, what is the primary reason for prohibiting it? _____
9. Are apartment owners or managers required to inform this utility when a submetering system or RUBS system is placed in service? ☐ Yes ☐ No
10. Does this utility currently install sub-meters (or individual meters) in individual units in any apartment buildings? ☐ Yes ☐ No
 - 10a. If no, do you plan to individually meter units in new multi-family construction? ☐ Yes ☐ No
 - 10b. If yes, within the next: ☐ 1-3 years ☐ 4-6 years ☐ 7-10 years
 - 10c. If no, what is the primary reason that your utility does not seek to sub-meter individual apartment units? _____
11. Does this utility provide any financial incentives or rebates for apartment owners that invest in sub-metering equipment? ☐ Yes ☐ No
 - 11a. If yes, how much of an incentive do you offer? \$ _____
 - 11b. If no, do you plan on offering an incentive in the future? ☐ Yes ☐ No

12. If your utility has any existing regulations or written guidance regarding sub-metering or billing allocation programs, it would be greatly appreciated if you could forward them by fax or by e-mail along with this completed survey to Potomac Resources.

Contact Information

Requests for clarification or further information at this utility may be directed to –

Name _____
Phone _____
e-mail _____

Thank You

Thank you for your participation in this important project. The results of the survey will be made publicly available in the final report of the National Multiple Family Submetering and Allocation Billing Program Study.

Please **fax** the completed survey to Potomac Resources, Inc. at 202-429-2248, or return by **e-mail** to <submeteringsurvey@starpower.net>.